

**Administration of
Dadra and Nagar Haveli
(Police Department)
Silvassa**

**Schedule of Requirement for CCTV System for Check Post and Markets in the UT of
Dadra and Nagar Haveli, as per the specifications.**

Sr. No.	Description	Qty.	Unit Rate with Tax
1	Outdoor PTZ Camera - For location 02 PTZ each at C.P. Naroli, C.P. Dadra, C.P. Kherdi, Panchayat Market & Kilvani Naka 01 at C.P. Khadoli	11 Nos.	
2.	IP Recorder with Video Recording Software and Video Management Software. As per Specification	2server 2 client	
3.	PC Workstation with Video Management Software	2	
4.	32" LCD Monitor for Control Room As per Specification	2	
5.	8 Port Switch as per Specification.	2	
6.	2.5 KVA UPS as per Specification	1	
7.	1 KVA UPS as per Specification	1	
8.	Power Cable - Finolex, R R Kable or equivalent	On actual per Mtr.	
9.	CAT - 6 Cable - D Link make or Equivalent	On actual per Mtr.	
10.	CAT-6 Patch Cord - D Link Make or Equivalent	On actual per Mtr.	
11.	Camera Mounting Accessories	Unit Rate.	

Wireless Connectivity between Control Room and Camera Location:-

Sr. No.	Items	Qty.	Unit Rate with Tax
1.	Wireless Radio Set with Antenna - CPE as per Specification Control Room to CP Narlo to C.P. Dadra to Panchayat Market to Kilvani Naka Market, P.S. Khanvel to C.P. Kherdi to C.P. Khadoli	6 sets	
2.	1.5 " Pole for Antenna Fitting	Per Mtr.	
3.	BTS With 3 nos. of 120 Degree Sector Antenna and Radio – 3 nos. With 2Kms. Radius for CPE. As per specification.	1 set	
4.	Point to Point Link between Camera and Control Room, minimum 25kms. As per Specification	On Actual Per Mtr.	
5.	GAY Wire Supported Mast	Per Mtr.	
6	For P.A. system 2 amplifier & 8 speakers including cabling		
7.	Installation Charge		

**Signature of the Proprietor
With Seal**

**Addl. Superintendent of Police
For Inspector General of Police,
Dadra and Nagar Haveli,
Silvassa**

INDOOR CCTV CAMERA TECHNICAL SPECIFICATIONS

OUTDOOR CCTV CAMERA TECHNICAL SPECIFICATIONS

- 1.0 **PTZ dome Camera**
- 1.1 UL/CE listed only.
- 1.2 230 VAC, UL listed, IP network high speed, 36X optical Zoom outdoor weatherproof Day / Night camera with IR cut filter, horizontal resolution 540 TVL with wall / pole with dynamic range.
- 1.3 Latest Imager %” CCD or better for PTZ camera.
- 1.4 Color Resolution 540 TV Lines for sharp pick up of live video.
- 1.5 The camera should have minimum Color Illumination of 0.5 lux for Color and 0.10 lux for B/W for deliverance of video captured in very low luminous environment / conditions.
- 1.6 The lens should have the capability to focus on large areas, as well as on small unidentified objects with a wide Focal Length of 3.4 to 119.4 mm (36 X Optical Zoom)
- 1.7 The camera can be zoomed on to any suspicious object / human being with a minimum Optical Zoom of 36 X Day and night mode for mission critical application
- 1.8 Pan Range 0 to 360 deg, continuous 24 x 7 application
- 1.9 The operator in the control room should be able to manually control Pan Speed up to 120Deg / Sec. The same should also be programmed as a preset up to 360 deg / sec for effective outdoor coverage with at least 90 presets.
- 1.10 Tilt Range – 18 to 90 deg with a tilt speed of 120 deg / sec for maneuverability in all directions.
- 1.11 Shutter speed : Automatic, NTSC – ½ “-1/30,000, PAL – 1/ 1.5 -1/ 30,000
- 1.12 The camera shall be programmable as per site requirement with Automatic scanning mode as programmed. There should be two such modes i.e. day and night.
- 1.13 Multiple Alarm inputs of minimum 4. Intelligent Video application to perform certain predefined functions upon the receipt of the Alarm
- 1.14 White balance : - Automatic with Manual overdrive
- 1.15 Housing Outdoor (IP 66) Dome Housing vandal proof
- 1.16 Input Voltage 230 VAC, 50 Hz
- 1.17 Network Protocols
- 1.18 TCP, IP
- 1.19 Video Data Rate 9.6 Kbps to 6 Mbps / Channel
- 1.20 Network Connectivity
- 1.21 Ethernet, 10/100 Base T, Auto Sensing
- 1.22 The following video resolutions should be configurable by the operator / administrator for ease of viewing / operations:
 - 704 x 576 (4 CIF)
 - 704 x 288 (2 CIF)
 - 352 x 288 (CIF)
 - 176 x 144 (Q CIF)
- 1.23 Window Blanking
- 1.24 142 to 256 Preset

2.0 VIDEO MANAGEMENT, OPERATING & RECORDING SYSTEM SOFTWARE

- 2.1 . The VMOS shall be a highly scalable enterprise level software solution. It shall offer a complete video surveillance solution that will be scalable from one to hundreds of cameras that can be added on a unit-by-unit basis.
- 2.2. The VMOS shall provide the following :
 - Search for IP Based PTZ camera available in the network
 - Set up and dismantling of connections from the network
 - Several simultaneous live picture connections of camera in network
 - Configuration of monitoring situation.
 - Programming of automatic recording events on a NVR.
 - System setup with limited operation for clearly defined surveillance tasks.
 - Remote maintenance of video server.

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- 2.3 The VOMS shall display JPEG and H. 264 video streams in real time simultaneously at bandwidth ranging from 128 K bits/sec to 4 M bits./ sec in H. 264 and from 1.5 M bits/sec to 6 M Bits/sec in JPEG, frame rates ranging from 1 fps TO 25 fps.
- 2.4 Each camera's bit rate, and resolution shall be set independently from other cameras in the system.
- 2.5. The VMOS shall allow:
- Live display of cameras
 - Live display of camera sequences
 - Control of PTZ cameras
 - Playback of archived video
 - Retrieval of archived video
 - Instant replay of live video
 - Use of site maps
 - Use of procedures
 - Configuration of system settings.

5.5	The IP based recorder shall provide DVD-RW for back-up of recorded video and audio of all channels and archive the same. The recorder shall have a USB Port connection to USB devices for Video/Audio backup, Network drive.		
5.6	The IP Based recorder should have MPEG-4/H.264 or better compression with the capability to be accessed from anywhere live at 4 CIF resolution @ 25 Frame/second video or recorded video from remote location at CIF resolution @ 25 Frame/Second.		
5.7	The operating system shall be Windows or Linux of open architecture.		
5.8	In local live image mode, up to 4 CIF @ 25 FPS must be displayed to allow continuous event monitoring. It must be possible to view free selectable images from the connected cameras either full-screen or multiple images . A user-definable sequence mode as live image display must be selectable.		
5.9	It shall be possible to have instant play back of the selected camera , with date and time.		
5.11	Image research , playing of archives, display of live images with audio and backup must be possible at the same time. A user-friendly input template shall allow image searches by time, date and camera number.		
5.12	User rights : up to minimum 20 different user profiles shall be programmable, with different rights in terms of: * Access to live image per camera basis * 71 Access to Image archives. * Permission to delete images. * Different setup levels.		
5.13	The IP based recorder shall have inbuilt web server and shall be directly accessible through Internet Explorer.		
5.14	It shall also be possible to add at-least 3 more additional IP Came with or without any extra hardware in the IP recorder.		
5.15	The following video resolutions should be configurable by the operator/administrator for ease of viewing/operations : 704 X 576 (4 CIF) 704 X 288 (2 CIF) 352 X 288 (CIF)		
5.16	Overall Delay MPEG 4, 120 ms		
5.17	Network Protocols RTP, Telnet, TCP, IP, SIP, UDP, HTTP, IGMP, ICMP, ARP, SNMP		
6.0	Hardware for IP recorder of reputed make like HP, Dell, IBA HCL, Compaq, Wipro, Acer etc.		
6.1	The server provided for IP recorder shall be able to provide high graphics display and shall come pre-loaded with video Management System Software with DVD-Drive 52 X, PS/2 Mouse and keyboard.		
6.2	Intel Core-2 Duo, 2.4 GHz, 4 GH Cache, DDR-2 667 MHz with, 1066 FSB Intel Hyper-Threading Support, DDR-400 & DDR-333m 8 X AGP Port, Internal Serial – ATA controller & ATA=100 EIDE-Controller or Equivalent or better system or better.		

6.3	HDD Interface IDE or better, RAM 1 GB or better, OS-Windows XP Home/ XP Professional Nista, Linus, Free memory with 3.0 TB.		
6.4	Graphic Card : NVIDIA GeForce FX 5700 Ultra, FX 5900 Ultra or FX 5950 Ultra, Matrox Parhelia, ATI RADEOn 8500, 9500, 9800 or better		
6.5	Ethernet Card Intel 10/100/1000 Mb/s Gigabit-Ethernet Network on board		
6.6	Sound Card :Internal AC-97 Audio-chip with Yamaha SYXG50 Soft Synthesizer or better		
6.7	Monitor equipment for IP recorder		
6.8	Integrated 1 T" LCD or better, Aspect Ration : Widescreen 16:9		
6.9	Display : LCD Active Matrix TFT, Response time LCD : < 16 ms		
6.10	Resolution : WXGA – 1300 X 700p or better		
6.11	Brightness : 400 cd/m2 or better, Contrast Ration : 500: 1 or better		
6.12	.Viewing Angles 150H/150V Degrees or better, Anti Reflex Coated Screen		
6.13	Video/Audio Monitoring Equipments in DO Office in PS		
6.14	PC Workstation reputed make like HP, Dell, IBM, HCL, Compaq, Wipro, Acer etc.		
6.15	The PC provided shall be able to provide high graphics display and shall come pre –loaded with Video Management System Software with DVD-Drive 52 X, PS/2 mouse and keyboard.		
6.16	Intel Core-2 Duo, 2.4 GHz, 2 MB L2 Cache, with 1066 MHz FSB, 8 X AGP Port, Internal Serial – ATA Controller & ATA-100 EIDE-Controller or Equivalent or better system.		
6.17	160 G77200 rpm Serial-ATA HDD or better , RAM 1 GB DDR-2 667 MHz expandable to 4GB, OS-Windows XP Home/XP Professional/Vista Professional/Linus.		
	Graph ic Card: NVIDIA GeForce FX 5700 Ultra, FX 5900 Ultra or FX 5950 Ultra, Matrox Parhelia, ATI RADEON 8500, 9500, 9800 or better		
6.18	Ethernet Card : Intel 10/100/1000 mb/s Gigabit-Ethernet Network on board.		
6.19	Sound Card : Internal AC-97 Audio-Chip with Yamaha S-YZG50 Soft		
6.20	32" TFT Digital Color High Resolution Monitor for above PC of reputed make like HP, Dell, IBM, HCL, Compaq, Wipro, Acer etc. TCO-03 certified. Specifications as per clause		
6.21	Supported Standards ITU-T-H-323 IP Networks IETF-SIP (RFC3261) IP Networks PpoE		
6.23	Web Management and other functions		
6.24	All the configuration, call, diagnostics and management functions should be accessible using the following web browsers : Microsoft Internet Explorer, Netscape Navigator etc.		
6.25	Video Coding H.261, H.263**, MPEG4, H.264 Audio Coding G.722.1, G.728, H.243		
6.26	Remote Diagnostics and Management		
7.0	8 Port Switch of reputed make like CISCO or Nortel or better		
7.1	The 8 port switch should have the speed of minimum 1 Ghz or better.		
7.2	The switch should have the PoE facility.		
8.0	2.5 KKVA UPS of reputed make such as Tata Libert, APC etc. with One Hour Backup through SMF Batteries for cameras,monitoring and recording equipment in Police Stations and IKVA UPS at DO office		
8.1	The UPS shall have capability to provide 220V± 10 Volt at 50 Hz output with input voltage 180 – 240 at 50 Hz		
8.2	The UPS Battery shall be of reputed make like Exide, Panasonic, Rocket or better		
8.3	The UPS shall provide warning, 10 minute prior to shut down		

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**Addl. Superintendent of Police
For Inspector General of Police,
Dadra and Nagar Haveli,
Silvassa**

ANNEXURE-I**Technical Specifications for Remote Radio**

Radio Specification	CPE for Camera Side
Frequency Range	2.300 to 2.735 GHz, 4.900-6.100 GHz
Number of Channels	76, 10 non overlapping 237, 5 non overlapping (4.9-6.1 GHz)
Channel Width	5/10/20/40mhz (software configurable)
Receive Sensitivity (1e-6 BER)	-90 dBm for 10 Mbps
Media Access Protocol	TDD, OFDM, Polling
ACK time management	Yes
Max Receive level	0 dBm (no damage)
Progressing Gain	> 10dBm
Antenna Connector	N Female (1 antenna connectors) scalable to 2 (optional)
RF Interface	1, scalable to 2 (optional)
Option of Additional Ethernet 10/100 Interface	Yes, upto 3
Wireless Data Rate	54 Mbps, 108 Mbps
Super fast Mode up to 108 Mbps	Yes
Rf Modulation Scheme	BPSK, QPSK, CCK, QAM4, QAM 16, QAM64, OFDM
Duplex Format	Time division Duplexing (TDD)
Certification	FCC
Range	upto 40km from BTS
Output Power (Antenna)	0 to27dBm
Pre Wimax	Yes
Extended Range (XR)	Best in the industry (-97 dBm to-105dBm)
Watch Dog Timer (for un-manned monitoring)	Software/Hardware/Temperature
QOS/COS/GOS (quality, class, grade of service)	Yes
Bandwidth Management	Yes
Router	Yes
OSPF (open shortest path first)	Yes
OLSR (optimal link static routing)	Yes
Monitor/Control	Through Ethernet port using http/Telnet
Packet Format	IEEE 802.3 and Ethernet II
Network Connection	10/100 Base T RJ Female Ethernet Connection
MESH Support	Yes
802.lx support	Yes
NIP	Yes
Bridge Functionality	Intelligent Local Packet Filtering (self learning),EOIP Transparent Node by node user configurable data rates (C1R and MBR). Client Bridge
Network Topologies	Point to Multipoint, Any point-to Multipoint, Multipoint-to Multipoint
Repeater Mode	Built in Mode
RF Collision Management	Combined TDD / OFDM and FEC
Security – Open VPN support	Yes
Security – Data Scrambling	256 bit Encryption , AES, WPA, WPA2
Security – Data Security Password	Network attachment is password protected
Remote Management	http web,Telnet
Management Port	Ethernet, Telnet
SNMP	V2
Multicasting Support	Yes
Management Port Functionality	Full configuration/management from any station through a command line

Software Management	File download over RF for firmware updates
Power Adapter Requirement	110 VAC or 220 VAC 7V – 18V DC, +/- 48v DC
Power Consumption	15W (fully loaded)
Height	7"
Width	11"
Depth	5"
Weight	3kg
Operational Temperature	(-)40C to (+)80C
Humidity	Humidity 0-95% non condensing Outdoor weatherproof endorser
The BTS shall cover 2 Kms. & radius. The BTS shall support more than 20 remotes CPE 120 degree sector antenna to be used for BTS in order to give a coverage to 360 degree in totality.	

Note : Tenderer will produce a sample on before the tender opening date i.e. on 26/6/2010 at 15.00 hrs. on the office of the Superintendent of Police, DNH, Silvassa and must be give demonstration of indoor and outdoor and sufficient training failing which tender will be not considered.

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ANNEXURE – II

TECHNICAL SPECIFICATION FOR POINT TO MULTIPOINT RADIO (BTS FOR CONTROL ROOM)

Radio Specifications	BTS for Control Room
Frequency Range	2.300 to 2.735 GHz, 4.900 - 6.100 GHz
Number of Channels	76, 10 non overlapping
	237, 5 non overlapping (4.9-6.1 GHz)
Channel Width	5/1 0/20/40mhz (software configurable)
Receive Sensitivity (1e-6 BER)	-90 dBm for 10 Mbps
Media Access Protocol	TDD, OFDM, Polling
ACK time management	Yes
Max Receive level	0 dBm (no damage)
Progressing Gain	>10 dBm
Antenna Connector	N Female (3 antenna connectors)
RF Interface	Yes, upto 3
Option of Additional Ethernet 10/100 Interface	Yes, upto 3
Wireless Data Rate	54 Mbps, 108 Mbps
Super fast Mode up to 108 Mbps	Yes
Rf Modulation Scheme	BPSK, QPSK, CCK, QAM4, QAM 16, QAM64, OFDM
Duplex Format	Time division Duplexing (TDD)
Certification	FCC
Remote Per Base	Up to 300+ nodes
Range	40kms point to multipoint
Output Power (Antenna)	0 to 27dBm
Pre Wimax	Yes
Extended Range (XR)	Best in the industry (-) 105 dBm
Watch Dog Timer (for un-manned monitoring)	Software/Hardware/Temperature
QOS/COS/GOS (quality class, grade of service)	Yes
Bandwidth Management	Yes
Router	Yes
OSPF (open shortest path first)	Yes
OLSR (optimal link static routing)	Yes
Monitor/Control	Through Ethernet port using http/Telnet
Packet Format	IEEE 802.3 and Ethernet II
Network Connection	10/100 Base T
	RJ Female Ethernet Connection
MESH Support	Yes
802.1 x support	Yes
NTP	Yes
Bridge Functionality	Intelligent Local Packet Filtering (self-learning), EOIP Transparent
	Node by node user configurable data rates (CIR and MBR), Client Bridge
Network Topologies	Point to Multipoint, Any point-to Multipoint, Multipoint-to Multipoint
Repeater Mode	Built-in Mode
RF Collision Management	Combined TDD / OFDM and FEC
Security - Open VPN support	Yes
Security - Data Scrambling	256 bit Encryption, AES, WPA, WPA2
Security - Data Security Password	Network attachment is password protected
Remote Management	http web, Telnet
Management Port	Ethernet, Telnet
SNMP	V2
Multicasting support	Yes

Management Port Functionality	Full configuration/management from any station through a command line
Software Management	File download over RF for firmware updates
Power Adapter Requirement	110 VAC or 220 VAC
	7V - 18V DC, +/- 48v DC
Power Consumption	15W (fully loaded)
Height	7"
Width	11"
Depth	5"
Weight	3kg
Operational Temperature	(-)40C to (+)80C
Humidity	Humidity 0-95% non condensing
	Outdoor weatherproof endorser
The BTS shall cover 2 kms in radius The BTS shall support more than 20 remotes CPE .	
120 degree Sector Antenna to be used for BTS in order to give a coverage to 360 degree in totality.	

Note:- Tenderer will produce a sample on before the tender opening date i.e. on /05/2010 at 12.30 hrs on the office of the **Superintendent of Police, DNH, Silvassa**, and must be given demonstration of Indoor and Out Door and sufficient training, failing which tender will not be considered.

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Addl. Superintendent of Police
For Inspector General of Police,
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Silvassa

TECHNICAL SPECIFICATION FOR PURCHASE OF CCTV CAMERA

Specified Features of the Wireless (Broadband Network) Equipment:-

SYSTEM

A Schematic architectural diagram of the system envisaged, is enclosed here with (Annexure-I).

The system will broadly comprises of the following Elements :

- 1) One centrally located broadband based Base Terminal Station (BTS in the Diagram) with necessary Trans receiver / Routers & associated hard wares.
- 2) Dual Antenna & Dual Channel (minimum) Radio-Bridge Router (Video Signal Converter cum Signal Processing unit) for each of the Cameras (shown as `CPE' in the Diagram).
- 3) Video-IP interface (converter) Device- (to convert bnc Connector based Analogue Signal to IP Based Signal) for each of the Cameras.
- 4) 120 Degree Sector Antennas - to ensure 360 Degree cover (3 nos), for Base Terminal Station (BTS).
- 5) One Mast Tower (As per Survey result) for Base Terminal Station (BTS).
- 6) LCD Monitors - for Control Room.

System should comply the following over-all requirements:-

1. The equipment shall be suitable for outdoor application . All enclosures used should be weather proofed (IP-65, minimum) to withstand exposure to Dust, rain and continuous sunlight. Where ever required vendor should have to be PROVIDE EXTERNAL Flame Proof, / Explosion Proof (Zone-2, Gas group IIA, IIB)housing For mounting these radio convertor
2. The equipment shall allow for achieving redundant path ('Grid /Mesh' preferable) signalling configuration between nodes to extend the coverage distance without any degradation of video quality Any additional equipment to enable this configuration to be included in the Offer.

Specific confirmation from the VENDORS are requested for the following points:-

1) The Total Band Width of the System Offered.

The Band Width of the Base Terminal Station (BTS) should be so designed to handle 80 Mbps dedicated Wireless network for Voice Data and Video-IN TOTAL Also it should be capable to handle 12 nos CCTV cameras IN FUTURE. In addition to that the **remaining** balance bandwidth can be utilize for other data communication such as - storage tanks data communication etc depending upon the future requirement.

2) Communication Frequency :

The Remote **Site Antenna & System (CEP) to utilize the Licence FREE - Frequency BAND (Preferably 2.4/5.8 GHz) with Grid Antenna to communicate to BTS.**

3) Exact Architecture of the Total System.

Indicating how the Output of Video Camera is going to be terminated / converted to Ethernet Switch & from Ethernet Switch to CEP.

4) **The Weight of BTS tower** (with Three 120 Degree Sector Antenna for 360 Degree Area coverage) to be mounted on roof of the C.Room building.

5) **REMOTE VIEWING** : In addition pictures from all these cameras can be monitored (by authorized users) from any remote places using PCs (Desk Top or LAP Top). [Provision of One Desk top PC with latest configuration, for Surveillance SERVER and data storage will be in DNH Police scope, as Free Issue Item].

6) **Completion Period** : The whole job to be completed with-in 2 months time (including supply, erection & commissioning) - after PO.

Desired & Typical Spec of the System are as below:

The Bidder to provide the related Technical data of the equipment that being offered, against each Attributes (as applicable for the offered System)

- a) Signalling Rate: 54 Mbps
- b) Typical Aggregate Useful Throughput: 10-15Mbps
- c) Frequency range of band: ISM 5725-5850 MHz /2.400-2.4835MHz i
- d) Router inbuilt
- e) Operational temperature -40C to +80c
- f) Non-overlapping Channels: 6 for 5700 or 3 for 5400, 5200 & 2400 MHz
- g) Channel Width: 20 MHz / 10Mhz/ 5Mhz
- h) Modulation Type OFDM (BPSK,QOSK,16-QAM,64-QAM)
- i) Minimum encryption: 256 BITS AES WAP2 encryption security, VPN and Firewall
- j) Carrier to Interference ratio (C/I): <3 dB
- k) Nominal Receiver Sensitivity (dbm typical): - **105 dbm**
- l) Antenna Gain (dB): 24dbi
- m) Output Power 0-27dbm
- n) Power supply:

Input :AC 100 - 230 V,0.35 A,18 VDC/48 VDC

Output :18VDC,1A

- o) antenna Beam Width :- antenna beam width 30 degrees,
- p) GRID Antenna :- 24.dbi suitable Antenna,5.8 G1-1z12.4 GHz
- q) Video (BNC) to IP Interface Device suitable for hook up with Existing analogue camera and Pelco Marix switchers , Suitable to Operate Video, PAN ,TILT ZOOM from centralized Control Room location and Various Alarm Fetaure .
- r) Ambient Temperature: - 40° C to +80° C
- s) Wind Survival: 190 km/hr (118 miles/hr)
- t) Duplex Format - TDD,FDD
- u) Interface : 10/100BaseT
- v) Management Port-Ethernet using HTTP,TELNET
- w)Network Management : HTTP, TELNET, FTP, SNMP Version 2c
- w) LCD Monitor 32" HDMI, High resolution - compatible for Interfacing with the SERVER , along with all Accessories for Group Viewing & Selectable Viewing at control room & ceiling mount Kit. From Reputed make (Samsung/ Sony).
- x) PC interface able DVR Card, of Reputed Make - compatible for the above System.
- y) All related Soft Wares, for full function Audio- Video Data Storage, Data Retrieval / replay, Remote PTZ - operation (using wireless Signal) & LAN -Viewing OF THE Pictures from remote DNH Police.
- z) Scope for Future capacity (number of Camera) enhancement - to cater 12 nos of More Cameras as Well as PC communication using the in built power of Wireless communication - of the offered system.

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Addl. Superintendent of Police
For Inspector General of Police,
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Silvassa

The Following Modifications will be prevail over the technical specification provided earlier on 11/6/2010. (Camera at CP Khadoli and CP Kherdi will be monitored from P.S.Khanvel and rest from the PHQ, Control Room, Silvassa.

1. 32” LCD Display Given specification
2. MESH support is Mandatory
3. Extended Range(XR)-97dbm to – 105dbm
4. BTS side with sector antenna & any CPE side with suitable antenna at any side location.
5. NO BNC Converter, purely IP Camera without any encoder
6. Suppose proposed to mesh topology the architecture of design antenna will be change can be acceptable.
7. Server HDD is 3TB as per specification.
8. Unit rates with Inclusive Taxes for all equipments/transaction.
9. P.A. System at Panchayat Market & Kilvani Naka with 4 Speaker each side amplifier should be minimum of 50W OUTPUT (2 amplifier)
10. Necessary Cabling and inbuilt battery back-up for PA System provided by party.
11. Single Client Station should support 4 LCD Monitor.
12. Camera, Video management S/W (VMS) & weather proof housing should be of same OEM.
13. The IP Camera should have built in analytic of camera sabotage detection viz blinding the camera, blurring the Video display and tempering with Camera field of view.
14. Quote only Wireless for Panchayat Market & Kilvani Naka.
15. Refer Cls.6.0 to 7.2 instead of cls. 3.0 to 5.4.
16. The Camera will be only UL & CE

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